

## Ex3: OpenGL Grades

ID1	ID2	Ex3 grades
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xxxx28022	xxxx16855	92
xxxx01053	xxxx23200	93
xxxx73601	xxxx91853	82
xxxx23661	xxxx76517	92
xxxx53295	xxxx15147	105
xxxx42594		98
xxxx49693	xxxx27647	99
xxxx95827	xxxx40631	96
xxxx62623	xxxx88213	88
xxxx55957	xxxx51709	94
xxxx31227		94
xxxx88413	xxxx79162	92
xxxx08967		100
xxxx76291	xxxx22457	105
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xxxx63251 xxxx50586 (light cycle)

- You did not mention anywhere in the documentation that you're using JLayer for sound. This is what the documentation is for.
- The walls the players leave behind are not solid (-2)
- The player models are sometimes too small and look like mere dots on the mesh surface.
- The scores are confusing and can sometimes reach negative values
- After playing with the zoom it is impossible to get back to the normal zoom view in which the game starts in
- The user model in the space invaders level is missing/invisible
- Nice visual style
- Good keyboard navigation
- The on-screen feedback information text could be somewhat better
  - Better indication of the number of lives
  - Missing indication of the available bonuses (tron-turn, teleport)
  - No indication that the game is paused
- At times, the frame rate seem to suffer due to extensive processing.

xxxx28022 xxxx16855 (light cycle)

- You did not implement any computer controlled adversaries. This was a specific requirement for the game (-5)
- BUG: Pressing left when the player is headed right causes him to crash into himself. This move should not be possible (-1)
- It's not quite clear when and why the game decided a level is completed (-2)
- The wall behind the player sometimes appear to have holes.
- The dual view screen is a nice idea.

- Good keyboard navigation

xxxx01053 xxxx23200 (light cycle)

- The camera is extremely shaky. This makes the game somewhat difficult to play. You could have avoided this by averaging the position of a few frames or disallowing sharp changes in the camera position (-4)
- There are visible holes in the wall behind the players - you should have connected adjacent quads together with additional triangles.
- Path collision detection sometimes fails even in flat regions (-2)
- Your program leaks memory and eventually crashes if left running for a long time.
- Most of the game controller is implemented in one huge main class. You should have divided responsibility between several classes (-1)
- Keyboard response could be a bit better. A single click moves the player too little. The key needs to start repeating for the press to have a significant effect and that takes 1-2 seconds.

xxxx73601 xxxx91853 (light cycle)

- The only world mesh in your game is the cube. The exercise specifically requires "Different levels of the game should use different world meshes." (-10)
  - It seems in fact that the "cubeness" of the world mesh is hard coded into the game.
- The camera moves in sudden and fast jolts that are extremely disorienting. (-5)
- The trails left behind different players is always the same color.
- The trails left behind the players hover above the mesh and don't really look like walls.
- Strange hard coded details in the class names - SharkMesh, DuckMesh. (-3)
  - Also, wasteful code duplication in these classes.

xxxx23661 xxxx76517 (xonix)

- The player have to actually stand on top of the bonus to take it instead of just conquering an area that contains the bonus.
- The first level of the game is really hard to finish. The second and third levels is impossible due to the plane enemies that stick close to the player and don't go away (-5)
- Navigation can sometimes be unpredictable. Going on a straight line and then taking an unexpected turn without user intervention. (-2)
- You could have made the movement less "discrete" by making an animation of the movement between two vertices.
- The indication that the player lost a live is not clear enough.
- Good game mechanics overall.
- Nice configurable level design
- Hard coded magic numbers in Main.java (-1)

xxxx53295 xxxx15147 (light cycle)

- Excellent visual style (+5)
  - Specifically the world mesh as a grid. Very original idea!
- Very good camera control
- it's too bad that the paths of dead players don't disappear after a while. This could have made the game slightly more interesting.
- Excellent keyboard navigation
- The "shorter tail" isn't really a good bonus since it makes life easier for both the player and the enemies
- To avoid the sharp edges of the wall turns you could have drawn a gluCylinder there.

- You could have just loaded a single player model and change its materials. Loading 5 identical models is somewhat wasteful
- The speed of the bike seem to be dependent in the length of the quads of the mesh. this is especially visible in the first level. You should have normalized the speed by the distance traveled.
- A pause option could have been very useful.
- When the final player dies it could be nice to show it to the user so he'll know what happened.
- This is an exceptional work. You should definitely consider putting some finishing touches, adding sound and releasing it in some open source site like sourceforge or google code.

#### xxxx42594 (worms)

- Very nice camera tracking of projectiles
  - Although sometimes the camera tend to wonder off into space following a missile
- Controls are somewhat complicated but playable once you get used to them
- Its a bit difficult at any time to tell what's going on. A clear separation of turns could have been helpful
- Shooing power is difficult to control. Would have been better if this was a bar in the side of the screen or something
- Very nice ballistics animation
- Nice selection of weapons
- The game tends to be somewhat slow paced. An option to increase overall speed of the game could have been useful (-2)

#### xxxx49693 xxxx27647 (xonix)

- Stopping at the base-station should be the default instead of forcing the player to press the space bar. Otherwise the player enters from one side and then inadvertently goes back out from the other side (-3)
- Great animation
- Very nice selection of enemies and bonuses (+2)
- 90% is a rather hard goal to achieve.
- Closing a region with an enemy inside should kill the enemy and close the area.
- You could have created more interesting world meshes than these various variations of a cube.

#### xxxx95827 xxxx40631 (qix)

- Player movement is too slow. This causes the game to feel rather sluggish.
- Backtracking on the players line cases him to die unexpectedly
- Player and enemies models are too small compared to the world model (-2)
- An enemy touching the line created by the player causes immediate death without warning. This is problematic if the player tries to draw long lines (-2)
- Good animation
- Nice bonus and enemy models

#### xxxx62623 xxxx88213 (light cycle)

- Initial submission missing files (-5)
- Camera movement is somewhat confusing and disorienting
- Turbo is not such a good bonus because it only makes the game harder.
- using the bonuses is too complicated. The user needs to remember which key activates which bonus (-1)
- Bug: it is possible for the players to take off into space and leave the world mesh (-4)

- It is often very hard to make the other players fail in order to win a level
- the models are too big compared to the world meshes (-2)
- Path collision sometimes fails

xxxx55957 xxxx51709 (scorch)

- The models of the players bonuses are too small compared to the world mesh
- Nice visual effects
- It's impossible to tell the different players apart. especially in the global world view. A color variation is usually the best way to do this (-4)
- Often times the rocket seems to miss and shoot to out to space (-1)
- There is no way to control the power of the shot.
- Missile projectiles are not oriented according to their trajectory when flying (-3)
- The limitation of just 2 computer controlled players is too small.
- nice mesh deformation (+2)
- A better implementation of the world view would be to allow to user to rotate it using the mouse

xxxx31227 (worms)

- Very nice camera control
- Players are too small compared to the world mesh. it takes a long time to get around the world to find an enemy (-3)
- Nice and simple game mechanics. Its quite easy to play the game
- Nice visual effects
  - You could have avoided the seam in the background by manipulating the texture.
- Nice mesh deformation (+2)
- There are only two kinds of weapons (required 3) (-5)

xxxx88413 xxxx79162 (xonix)

- For some reason the window size is very large and can't be reduced (-2)
- The meshes you are using are extremely coarse. this makes the movement of the player quite unintuitive (-5)
- The lines drawn by the player are often occluded by the mesh. you should have used GL\_LINES instead of quads.
- It is possible for the user to backtrack on the path it created and close an area not connected to the main area. (-1)

xxxx08967 (worms)

- Very nice visual style (+2)
- Good and intuitive controls although it takes some getting used to
  - still, it is often difficult to know where you're aiming at.
- Very nice world although there's really no reason to avoid actual 3D structures like intended in the exercise.
- Possible bug: sometimes computer players seem to just hang around doing nothing for the entire duration of their turn.
- Excellent collision detection and ballistics
- A way to make a distinction between the different snails of each player could be useful.
- A summary of the health of all players at the side of the window would allow the player to know how he's doing.
- Coding issues (-2)
  - The Main class is huge You should have atleast divided the drawing logic to a separate class.

- Many parts of the code contain a lot of code duplication

xxxx76291 xxxx22457 (worms)

- Great visual effects (+5)
- Very good camera control.
- Excellent intuitive controls
- Very good ballistics of missiles.
- Very nice User Interface
- The radar is a very nice and original idea.
- Land mines are too sensitive. They explode even if the player isn't really on top of them.
- Possible bug: Sometimes the enemy does nothing for the entire duration of his turn
- Your capture the flag implementation is quite original but rather different than the normal notion of CTF and somewhat problematic.
  - If two players stand near one flag it will be passed between them in every turn
  - Capturing your own flag still counts as a flag capture
  - Starting a turn near a flag that is not yours and making a single move captures it and ends the turn
- After a while of playing the game may hang in the loading screen
- You could have tried using some more interesting meshes.
- Having a separate class for every type of character is somewhat wasteful considering the only difference are the files loaded.

xxxx22737 xxxx88003 (worms)

- very nice visual effects (+4)
- Nice camera control although sometimes the camera enters into the world mesh (-1)
- The rocket collision detection sometimes fails and it ends up inside the world mesh
- You could have tried using some more interesting meshes.
- Implementing animation for walking could have decreased the "jumpiness" of the game
- The purpose of the "time travel" option isn't very clear.
- It is very hard to aim the rocket launcher
- There is no collision detection with the mushrooms and trees situated in the scene.